

**IN THE CLAIMS:**

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strike through~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please cancel claims 1-9, 11-16, and 19.

1.-9. (Cancelled)

10. (Original) A stud welder apparatus comprising:

a drawn arc stud applying device; and

a drawn arc stud processing circuit that continuously measures the degree of melting off when making the stud and stops delivery of energy to the stud applying device if the melting off progress indicates that the stud will not receive sufficient energy at the end of the stud process in sufficient time that the stud process can be stopped before an unacceptable stud has been created by pulling back the stud before a molten stud has cooled down.

11.-16. (Cancelled)

17. (Original) A stud welder apparatus comprising:

a drawn arc stud applying device; and

a drawn arc stud processing circuit that measures energy at regular time intervals, extrapolates a forecasted ending energy based upon a predetermined energy, and adjusts at time intervals a current to the stud applying device so that the ending energy is correct.

18. (Original) A stud welder apparatus as recited in claim 17, wherein the processing circuit calculates by extrapolation total energy that will be delivered after the stud process is completed by calculating continuously during the stud process an accumulated watt seconds per accumulated millisecond and continuously adjusting the current so as to arrive at a total desired watt seconds when the stud process is terminated.

19. (Cancelled)